

Claims

- [c1] 1. A beneficial material for medical application in association with a substrate comprising:
- a support material; and
 - a reactive material associated with the support material,
- wherein the reactive material is selected from the group comprising water insoluble peroxides and water insoluble excess oxygen containing compounds.
- [c2] 2. The beneficial material of claim 1 wherein the support material comprises one of the group consisting of: ionomers, anion exchange membranes, cation exchange membranes, Nasicon and Nafion.
- [c3] 3. The beneficial material of claim 1 wherein a substrate may comprise one of the group consisting of: formulations in a paste, putty, epoxy, adhesive, glue, spray or tar form for topical application, wound healing devices, prosthetic devices and other implantable devices.
- [c4] 4. The beneficial material of claim 1 wherein the water insoluble peroxides comprise one of the group consisting of: MgO_2 , BaO_2 , SnO_2 , AgO , CaO_2 , CuO_2 and ZnO_2 .

- [c5] 5. The beneficial material of claim 1 wherein the water insoluble excess oxygen containing compounds comprise one of the group consisting of perovskites of $\text{La}_2\text{NiO}_4 + \delta$, $\text{La}_2\text{CuO}_4 + \delta$, $\text{CeNiO}_4 + \delta$ and $\text{Ce}_2\text{CuO}_4 + \delta$.
- [c6] 6. A wound healing device comprising:
- a substrate capable of association with a wound of a human or other animal; and
 - a reactive material associated with the substrate, wherein the reactive material is selected from the group comprising water insoluble peroxides and water insoluble excess oxygen containing compounds.
- [c7] 7. The wound healing device of claim 6 wherein the substrate comprises one of a woven pad and a gauze pad.
- [c8] 8. A method of incorporating a beneficial material to a fluid or semi-solid substrate comprising the steps of:
- providing a fluid or semi solid substrate;
 - providing the beneficial material; and
 - mixing the beneficial material within the substrate, wherein the beneficial material is selected from the group comprising water insoluble peroxides and water insoluble excess oxygen containing compounds.
- [c9] 9. The method of claim 8 further comprising the step of granulating the beneficial material.

[c10] 10. The method of claim 9 wherein the substrate may comprise one of the group consisting of paint, epoxy, adhesive, glue and tar.